

Pharmacist Clinical Services

Improve Health Care Quality, Lower Health Care Costs

Potential Medication Therapy Management Impact: ~ \$30 Billion in Savings

The entire equivalent of the U.S. population passes through a pharmacy each week. Their accessibility, training, and the fact that medications are our most important weapon in the fight against chronic disease place pharmacists in a critical role to reform healthcare in this country. The information below demonstrates possible savings if pharmacist clinical services were more widely available.

Diabetes Costs

There are 23.6 million people in the United States, or 8% of the population, who have diabetes. The total prevalence of diabetes increased 13.5% from 2005-2007. Cost of diabetes is \$174 billion. Pharmacist programs such as The Asheville Project¹ and The Diabetes Ten City Challenge² have the potential to save \$1000/patient/year or \$23 billion per year.

Cardiovascular Costs

Estimates for the year 2006 are that 80,000,000 people in the United States have one or more forms of cardiovascular disease (CVD). The cost of CVD and strokes in the United States in 2009 is estimated to be \$475.3 billion (according to the American Heart Association and the National Heart, Lung, and Blood Institute). Asheville Project - Cardiovascular results showed a decrease in health plan expenditures of \$628 per patient. Potential savings across the entire population could be as high as \$5 billion.

Asthma Costs

22.8 million people currently have asthma, with direct costs estimated to be \$14.7 billion. The Asheville Project - Asthma saved \$725/patient/year. Potential savings across this population could be as high as \$1.6 billion.

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Supportive Data

Every dollar spent on pharmacists' patient care services realizes health care savings of \$16.70.³

- **Minnesota MTM Care Program:** estimated annual cost savings amount of \$403.30 per patient for MN adults achieving the “optimal care” benchmark for diabetes. Even though a cause and effect relationship cannot be firmly established, potential annual cost savings among the 41 MTMS (medication therapy management services) recipients with diabetes achieving optimal care would be \$15,325.⁴ **Pharmacist-provided MTMS decreased health care costs from \$11,965 to \$8,197 per patient per year.**⁵
- **Diabetes Ten City Challenge (DTCC):** average total health care costs were reduced annually by \$1,079 per patient compared to projected costs if the DTCC had not been implemented; improvements in key clinical measures, including A1C, cholesterol and blood pressure; increases in preventive care measures, including the number of people with current influenza vaccinations, eye exams and foot exams.⁶
- **Department of Veterans Affairs (VA):** By extrapolating the average salary data for pharmacist, the VA expects to see an annual \$368,000 in savings from each pharmacist by providing clinical pharmacy services.⁷
- **Literature Review:** A systematic literature search was conducted to identify published economic evaluations of pharmacist clinical services. Among studies reporting data necessary to determine a benefit-to-cost ratio (n=15), the pooled median value was 4.81:1—meaning that for every \$1 invested in pharmacist clinical services, \$4.81 was achieved in reduced costs or other economic benefits.⁸
- **Limited Health Literacy in Ambulatory Care Settings:** annual savings attributable to pharmacists include \$3.5 billion in hospital cost avoidance by coordinating medications from multiple prescribers.⁹
- **Anticoagulation Clinic:** annual savings attributable to pharmacists include more than \$1,600 in direct health care costs per patient at a pharmacist-run anticoagulation clinic, compared to usual medical care.¹⁰

Endnotes

1. Accessed September 11, 2009 at http://www.aphafoundation.org/programs/Asheville_Project/
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3. Schumock GT, Meek PD, Ploetz PA, Vermeulen LC. Economic evaluations of clinical pharmacy service – 1988-1995. *Pharmacother* 1996;16:1188-208
4. Evaluating Effectiveness of the Minnesota Medication Therapy Management Care Program accessed September 11, 2009 at <http://archive.leg.state.mn.us/docs/2008/mandated/080113.pdf>
5. Isetts Bj, Schondelmeyer SW, Artz MB, Lenarz LA, Heaton AH, Wadd WB, et al. Clinical and economic outcomes of medication therapy management services: the Minnesota experience. *J Am Pharm Assoc* 2008;48(2):203-211
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7. Schumock OT, Butler M6, Meek PD, Vermeulen LC, Arondeker BV, Bauman JL. Evidence of the Economic Benefit of Clinical Pharmacy Services: 1996-2000 *Pharmacotherapy* 2003; 23(1):113-132
8. Perez A, Hoffman JM, Meek PD, Touchette DR, Vermeulen LC, et al. Economic Evaluation of Clinical Pharmacy Services 2001-2005. *Pharmacotherapy* 2008;28(11):285e–323e at <http://www.accp.com/docs/positions/whitePapers/EconEvalClinPharmSvcsFinalkjsedit-gts.pdf>
9. Persell SD, Osborn CY, Richard R, et al. Limited health literacy is a barrier to medication reconciliation in ambulatory care.. *J Gen Intern Med.* 2007; 22:1523-6
10. Chiquette E, Amato MB, Bussey HI. Comparison of an anticoagulation clinic with usual medical care: anticoagulation control, patient outcomes, and health care costs. *Arch Intern Med.* 1998;158:1641-7